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THE AIR FORCE LONG RANGE PLANNING ORGANIZATION: SPEAKING WITH ONE VOICE?

BY

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A THESIS PRESENTED TO THE FACULTY OF THE SCHOOL OF ADVANCED AIRPOWER STUDIES FOR COMPLETION OF GRADUATION REQUIREMENTS

SCHOOL OF ADVANCED AIRPOWER STUDIES

AIR UNIVERSITY

MAXWELL AIR FORCE BASE, ALABAMA

JUNE 1997

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Acknowledgment

I wish to thank Lt Col Clay Chun for his expert advise, guidance in researching this topic and his limitless patience in reviewing my numerous drafts. As the reader for this study, Dr. Jim Corum's meticulous editing not only ensured proper grammar, but eased the task of anyone wishing to read this study. Col Rob Owen's insightful questioning enabled me to frame and bound this policy question. Finally, thanks to my "cell" mates, Majors Sam McCraw and Frank Jones for their valuable inputs to my work.

From the Air Staff, I wish to thank all those who patiently explained seemingly complex processes to a "naive" Major. Specifically, the staff of the former AF/LR and the Washington RAND office were critical to providing the background material for this study.

Most importantly, I thank my wife Michelle and my daughters for their love, support and patience through the years, but especially this last two years.

ABSTRACT

The National Security Strategy of the United States calls for an increased emphasis on efficient use of the nation's resources. Political and economic pressures are mounting for the military to justify its expenditures. Long-range planning is one of the methods the USAF is embracing to more efficiently and effectively use the nation's resources in these uncertain times. The USAF has recently reorganized, with the new DCS Plans & Programs responsible for the Air Force's long-range planning. This study examines this latest reorganization and addresses these two questions: Should the Air Force reorganize its long-range planning efforts from the emerging status quo or use some other type or organization? For the given choice, are there potential hurdles to the successful institutionalization of long-range planning? The study first examines the history of long-range planning efforts within the USAF and delineates some of the organizational objectives and impediments to its institutionalization. Second, it describes two organizational options and compares their ability to ameliorate the hurdles to institutionalization. Third, what are the implications of this choice and potential hurdles it might face? Answering this question will highlight issues, which are addressed in the recommendations of this study.

Past attempts at long-range planning present a significant impediment to the institutionalization of long-range planning within the Air Force. The history of the long-range planning process reveals a series of attempts to institutionalize it at the Air Staff level.

Each attempt was pursued earnestly and resulted in some worthwhile products. However,
none of the changes ever took root and produced lasting results for the Air Force.

The basic objective of the process in the USAF is to assist the Air Force leadership in developing future strategic and investment alternatives, which should lead to force structure, strategy and resource decisions. Long-range planning has several procedural and organizational hurdles to overcome if it is to be successful. I have categorized the issues into the following areas: Top management participation; Politics/Control; Focus/Division; Communication/ Feedback /Integration; Decision-Making; and Span of Control.

Once the history and hurdles have been described, I detail two organizational choices for the Air Force and compare each option's ability to negotiate the hurdles. I describe them from a macro view and detail how each one should enhance long-range planning. Option 1 is to maintain the status quo. This option concentrates on maintaining the long-range planning process within the status quo. Option 2 is to consolidate Plans & Programs under the AF/XO. All of the current structure, functions and responsibilities within AF/XP would be shifted to the AF/AXO.

The qualitative analysis produced the choice of option 1, which is to maintain the status quo. Option 1 should overcome the impediments to long-range planning more effectively than option 2. It prevents the long-range planners from being commingled within a directorate responsible for current issues and affords them the viewpoint of being able to look beyond operations and equipment modernization issues. It places them closer to the CSAF, allowing them to have more direct interaction with top management.

Additionally, it affords the long-range planning process the best chance at being embraced and seen as beneficial in the senior leadership decision-making process.

Option 1 is the choice, but the analysis reveals the potential for significant inefficiencies in communications for this option. Procedural and organizational solutions for these problems are examined. First, maintenance of current classification and dissemination policies is reinforced and two of the procedural inefficiencies for the Integrated Process Teams within the Air Force Corporate Structure are examined. Second, organizational changes to address potential manning issues for AF/XP are addressed. Specifically, the study examines the potential move of the AF/XOR and AF/XOJ functions and manning to AF/XP.

This study concludes by answering the two basic questions. First, should the Air Force reorganize its long-range planning efforts from the emerging status quo or use some other type of organization? The answer is to use a modified status quo organization. Second, for the given choice, are there potential hurdles to the successful institutionalization of long-range planning? The answer is a resounding yes. The current organization is better suited toward implementing long-range planning than the other option explored. However, it potentially has significant communication hurdles to overcome. If these problems come to fruition and the organizational and procedural solutions I address are implemented, then in essence we have a heavily modified Option 1, if not a new Option 3.

However, before making any organizational changes, AF/XP should conduct a thorough review of the processes to coincide with the next MPP cycle for the POM FY 02-07. If long-range planning is going to be institutionalized successfully in the Air Force, I be-

lieve the decision tree chart in chapter seven should be used as a guideline for procedural and organizational changes to the Air Staff.

Chapter 1

Introduction

No problem can be solved from the same consciousness that created it. We must learn to see the world anew.

— Albert Einstein

Our nation must maintain military forces sufficient to deter diverse threats and, when necessary, to fight and win against our adversaries.

— National Security Strategy

In undertaking this project, I was given some sound advice by a wise general on the Air Staff, "Don't be naive, assume we have thought of every possible option for this reorganization. Furthermore, realize you are a major and you probably can't write a three or four star paper." With this guidance in mind, this study is intended to answer the following two questions. Should the Air Force reorganize its long-range planning efforts from the emerging status quo or use some other type of organization? For the given choice, are there potential hurdles to the successful institutionalization of long-range planning?

Problem Background and Significance

As the US National Security Strategy (NSS) document states, "Deficit reduction is also central to the long-term health and competitiveness of the American economy, we

have made it, along with efficient and environmentally sound use of our resources, a major priority." These strong political and economic pressures to balance the budget imply the military is a likely target especially with no peer competitor or threat in the immediate future. The services must be positioned to demonstrate how they intend to provide for the nation's defense. The USAF is aware of the importance of responsible stewardship of taxpayer dollars and will strive for the most efficient use of those dollars. Efficiency is also required to ensure the nation is able to engage successfully across the full spectrum of conflict. The penalty for inefficiency is unmet demand for military capabilities. Long-range planning is one method of increasing an organization's ability to efficiently and effectively use its resources in uncertain times.

Long range planning in the Air Force has tended to be ignored in most cases or not integrated as a critical input for near term decisions. As a result, long term institutional goals and objectives were not met or ignored. Long-range planning was often viewed as too cumbersome and not linked to the critical resource identification and allocation processes that drive decisions. Many argue these shortfalls are a result of long-range planning being functionally and organizationally misaligned.³ Additionally, according to Major General David McIlvoy, Deputy Chief of Staff Plans and Programs, Director of Strategic Planning (AF/XPX), senior leaders felt the Air Force lacked a shared, long-range vision of its role in joint warfighting, had too much functional thinking, did not speak with a single voice on airpower and traditionally has had bottom-up planning.

The CSAF stood up a Special Assistant for Long Range Planning (AF/LR) for 18 months and then directed a reorganization of the Air Staff to address this problem with long-range planning. The USAF has recently reorganized, with the new DCS Plans &

Programs (AF/XP) responsible for the Air Force's long-range planning process. AF/LR (now part of AF/XP) published the first step in the process of institutionalizing long-range planning by producing the Air Force's strategic vision, *Global Engagement*. This vision is intended to chart the course for the Air Force into the first quarter of the 21st century. This first step is the guide for the development of a Long-Range Plan.⁴

The Long-Range Plan "will identify those initial steps and transition decisions which are necessary to reach the goals outlined in this strategic vision document. Transition decisions are critical to formulating meaningful divestment and investment strategies, to making transitions from sunset to sunrise systems and capabilities, and to providing the milestones and feedback mechanisms that ensure accountability. The Long-Range Plan will further guide the Air Force's other planning and resource allocation processes."

The vision and Long-Range Plan are intended to fulfill the charter given to AF/XP to create "a coherent, *strategic vision* for the Air Force in the 2025 time frame, shared by senior Air Force leaders, articulating the contributions of air and space power to joint warfighting and to the future defense needs of the nation, and charting actionable courses to that future." Several key phrases in this charter reveal that General Ronald Fogleman, the current Chief of Staff, intends for this process to have immense impact on the future resource allocation of the Air Force. It also reveals that the process must be institutionalized across the Air Force and that senior leadership will have to be closely involved in the process.

The institutionalization of the long-range planning process is obviously important to the Air Force. The purpose of this paper is to analyze this institutionalization. Some of the key issues affecting long-range planning revolve around potential organizational and procedural problems with the emerging organization. Addressing these potential problems and offering an alternative organizational structure or potential solution are critical to ensuring that the long-range planning process is sustained and that the USAF is able to convey a unified message.

Methodology

This paper uses a policy analysis methodology. Historical and survey analysis generate the criteria for evaluating alternative organizational concepts. The pros and cons of these alternatives are evaluated and conclude with recommendations.

The selection of evidence involved evaluating authority and relevancy. Collection methods involved bibliographic searches, review of long-range planning data, RAND publications, and interviews with persons involved in the planning process. The analytical criteria are the synthesis of historical and survey analysis conducted by others and the author. The survey analysis focuses on identifying pros and cons of each of the alternatives in respect to solving the potential problems of long-range planning emphasis and conveying the Air Force message.

Paper Organization

This study has seven chapters. Following the introduction, the second chapter explores the background of long-range planning within the Air Force. A historical study done at the Air Staff is the primary source for this section. The chapter concludes with some trends identified with the failure to implement long-range planning successfully.

The third chapter describes the theoretical underpinnings for long-range planning.

The objectives of the process are delineated to provide the *raison de entrée* for institu-

tionalizing the process. The other portion of the chapter is used to describe the hurdles to successful institutionalization of the process.

The fourth chapter describes the status quo and an alternative organizational structure for the Air Staff. The organizations are briefly described. Common processes are defined within the first structure and any differences for the processes are described in the second option.

The fifth chapter compares the two options against six organizational criteria. The structures are qualitatively analyzed against the identified hurdles from chapters two and three. The analysis concludes with the choice of the status quo.

The sixth chapter discusses the choice of staying the course with the status quo, but then explores some potential problems. Solutions to these potential problems are then analyzed. Some aspects will have concrete conclusions, while others would require more analysis at the Air Staff level to comprehend the full impact of the solutions.

Finally, the seventh chapter lays out the recommendations for the long-range planning organization.

Definitions

If there is anything contentious about long-range planning, it is the definitions of the various terms of the planning lexicon. Therefore, following is a list of the terms that need to be defined for establishing common ground when reading this study.

- 1. *Strategy*—A general statement of objectives for an organization. It is plan, a course of action into the future, a position, a perspective, a way of doing things, or a guide to action.⁷
- 2. Long range planning—translates future strategic environment, core competencies, and vision into a range alternatives that help shape demand and supply; provides guidance and vision for the future, and is not always fiscally constrained.

- 3. Strategic planning—Articulates guidance and vision into mid-term actions (7 to 15/20 years); Forms crosswalk between long-range planning and extended program planning; Fiscally-constrained, but not as rigorously as program planning.
- 4. *Programming phase*—Translates fiscally-constrained plans into a POM; Crosswalk between planning and budgeting in PPBS process; should produce an array of fiscally constrained trade-offs and alternatives in support of POM.⁸

Long-range planning and strategic planning are not mutually exclusive, both attempt to shape the environment but long-range planning defines future demand at least 25 years out, while strategic planning produces a proactive, fiscally-constrained plan for how to achieve corporate goals (derived from the long-range plan) beyond the Future Years Defense Program (FYDP). It might be easier for the Air Force to implement them as one unit.⁹

Having laid the foundations for common reference for this study, there are also some limitations and assumptions for this paper. These limitations and assumptions coupled with the previous definitions provide the context for the study.

Limitations and Assumptions

As stated earlier, I will attempt to minimize the "naive" factor of this paper. The observations are not from some one who is intimately familiar with the Air Staff. As a result, any assertions, conclusions and recommendations would require an across the Air Staff analysis to comprehend their full impact. However, not being on the Air Staff also provides me with a more objective view of the long-range planning function. Unless specifically stated, the identified problem areas are only potential hurdles to the successful implementation of long-range planning. Additionally, any solutions offered will inevitably create problems in other areas. Therefore, there is a distinct possibility that some of the inferences drawn may be premature.

Due to the constant limitation of space and time for finishing a study such as this, I will make a few assumptions. First, I assume the reader is familiar with most of the components of the Air Staff and their functions. Second, I assume that the reader is familiar with the acquisition and budgeting processes both at the MAJCOM and Joint levels. Where appropriate, I will describe in more detail elements of each of these. ¹⁰

Notes

¹A National Security Strategy of Engagement and Enlargement. February, 1996.

²Global Engagement: A Vision for the 21st Century Air Force. November, 1996.

³Corona Issue Paper (Draft). "Institutionalizing of Long Range Planning", September 1996.

⁴Global Engagement: A Vision for the 21st Century Air Force. November, 1996. ⁵Ibid

⁶Major General David McIlvoy, "Implementing the Vision," lecture, Air University, Maxwell AFB, AL, 4 March 1997.

⁷Wade P. Hinkle, James P. Bell, Andrew W. Hall and Caroline F. Ziemke, "New Techniques for Long Range Planning", IDA Paper P-3204 (Alexandria, VA: Institute for Defense Analysis, 13 Sep 1996) 2-1-2-6.

⁸Leslie Lewis, "Institutionalization of the Air Force's Long-Range Planning and New Concept Development Processes", RAND Project Memorandum PM-551-AF (Santa Monica, Calif.: RAND, May 1996), 20-25.

⁹Ibid., 20-25.

¹⁰For additional information on any of these, see the bibliography.

Chapter 2

History of Long-Range Planning

I never think of the future. It comes soon enough.

— Albert Einstein

Why would an organization invest the resources necessary to implement and maintain a long-range planning process? What return on investment does long-range planning yield? Organizations cannot easily answer these questions and they will continue to trouble military and business organizations alike. The purpose of this and the following chapter is to shed some light on the subject, so as to focus on possible solutions in chapters five and six. This search will begin with a survey of the history of long-range planning within the Air Force.

Historical Review

Past attempts at long-range planning present a significant impediment to the institutionalization of long-range planning within the Air Force. Since its inception, the Air Force has repeatedly tried to establish a permanent long-range planning process. The individual plans from those repetitious attempts were varied in degree of usefulness, but each attempt at institutionalizing the process failed to flourish. Each attempt was usually abandoned when the persons most involved in creating them were reassigned.

Toward New Horizons (1945-1947)¹¹

The first attempt at long-range planning was the legendary *Toward New Horizons*. General of the Air Force, Henry H. Arnold, requested the study in September 1944 in recognition of the link between the Air Force's technological superiority and the nation's defense needs.

General Arnold's scientific advisor, Dr. Theodore von Karman, conducted the study, *Toward New Horizons*. The study was designed to determine ."..what will be the shape of the air war, or air power, in five years, or ten, or sixty-five" The final report was received favorably by the Air Staff and senior personnel within Air Material Command. Based on the findings in the report, the Air Force pursued programs such as the Intercontinental Ballistic Missile (ICBM). Although constrained by fiscal realities, the study nonetheless had a significant impact on Research and Development (R&D) in the Air Force. ¹³

The most consequential impact the study had on R&D was the impetus it provided for a study conducted on R&D by the Scientific Advisory Board (SAB). Louis N. Ridenour and Lieutenant General Jimmy Doolittle, authors of the report, recommended three substantial changes for R&D. Specifically it called for the creation of a R&D command (Air Research and Development Command), a Deputy Chief of Staff (DCS) for Development on the Air Staff and unitary budgeting for USAF development activities, all of which the Air Force implemented.¹⁴

Towards New Horizons represented the first attempt by the Air Force to codify longrange thought concerning air and space power's future. This study represented important changes for R&D, but it was also the beginning of long-range thinking within the Air Staff. The study was the baseline of future long-range planning efforts and shaped expectations for these efforts through the ensuing years.

The War Plans Era (1947-1957)

During this period, long-range planning was primarily emphasized at the Air Staff level. General Arnold's guidance concerning plans and operations was adhered to when the Air Force gained its independence in 1947. He called for the Air Staff to focus on planning and the Major Air Commands (MAJCOMs) to concentrate on the day-to-day operations. Planning resided in the Directorate of Plans & Operations, within the DCS/Operations. Within the Directorate, the Blue Team of the War Plans Division was responsible for long-range planning, but eventually evolved into the Strategic Studies Branch. Plans Division Was Div

The Air Force Council was created in April 1951 by CSAF Hoyt Vandenberg to speed the process of making basic policies and decisions. The Council consisted of each of the DCS's, the Inspector General and was headed by the VCSAF. By June 1953, the Strategic Studies Branch produced and the Air Force Council approved the *USAF Long-Range Strategic Estimate*. The Air Force designed the document as a guide for future R&D efforts. However, neither the DCS Development on the Air Staff or Air Research and Development Command (ARDC) seemed to have used it to guide program decisions. Likewise, there is no evidence to suggest the Strategic Studies Branch followed up on the adherence to the document in the R&D community. 19

The Air Staff was dissatisfied with the progress of long-range planning and chartered a Long-Range Study Group to study the issue. The Study group recommended forming a

group which would report directly to the War Plans Division. In June 1954, the Long-Range Objectives & Programs Group (LROPG) was created. LROPG's charter was to work issues concerning long-range strategic plans and the strategic impact of technology. LROPG was a supplement to the Strategic Studies Branch. "For the first time, but not the last, the Air Force's long-range planning efforts were officially fragmented."²⁰

The LROPG reported their findings to VCSAF General Thomas D. White, in a study entitled the *AF Program Study* (1957-1965). The study made a favorable impression on him and led him to establish a panel of one and two star generals to perform similar studies and to recommend Air Force structure and program objectives. The LROPG staff served as action officers to the panel. In late 1954, the panel reported their findings to the AF Council, who then chartered itself to study the same issues.²¹

Soon after looking into the issues, the AF Council produced a report called the *USAF* Force Structure & Program Objectives (FSPO) 1957-1965. This study was to be updated on a regular basis and soon succeeded the *USAF Long-Range Strategic Estimate* as the Air Force's long-range planning guidance. CSAF General Nathan F. Twining directed the Air Staff and all MAJCOMs to consider the FSPO's guidance in all pertinent issues. Despite this, the utility of the document decreased when General Twining declared it TOP SECRET and severely controlled its distribution.²²

DCS Plans Era (1957-1964)

This period was marked by two significant changes for the Air Force's long-range planning efforts. The relationship between the Air Force and civilian scientific and tech-

nical experts was solidified by the two studies they produced in a joint effort. In addition, the fragmented elements of long-range planning were consolidated within a DCS.

The first of these two studies produced in this period facilitated the working relationship between the military and civilian experts. Lieutenant General Thomas S. Power, ARDC/CC, and VCSAF General Curtis E. LeMay contracted Dr. von Karman to lead a team from the National Academy of Sciences to perform a new study. The study was plagued by a lack of focus due to rapid changing events such as the launch of the Sputnik, which caused Air Force officials to attempt to steer the group to look more at the space environment. As a result, *The Woods Hole Summer Study*, 1957/1958 was not well received by the Air Force and ARDC, and therefore failed to have much impact. Nonetheless, the foundation for cooperative efforts had been laid.²³ As Michael Gorn notes, the study solidified the administrative procedures relating to compensation items for the civilian participants, as well as yielding the emergence of a large cadre of officers with scientific, engineering and technical backgrounds. Both of these made possible "the new cooperation among academics, corporate scientists, and engineering officers."²⁴

The second study completed in Fall 1963, *Project Forecast*, was led by Air Force Systems Command (AFSC), which replaced ARDC. It included participation by ."..28 separate AF organizations [including MAJCOMs], 13 major government agencies (including the Army, Navy, and Marine Corps), 49 subordinate government agencies, 26 colleges and universities, 70 corporations, and 10 non-profit institutions..."²⁵ The most significant point of the study was the process of developing the report. General Bernard A. Schriever, AFSC/CC, designed the analysis for the report to be a balance between the "push" and "pull" factors for acquisition. The scientist were able to allow technology to

push requirements, while ensuring they were tied to hard military realities (pull). Although the study did not have the immediate impact the authors desired, it did eventually result in the development of the C-5, Short Range Attack Missile (SRAM) and the A-10.²⁶

Equally important during this period was the consolidation of all long-range planning within the Long-Range Objectives Group (AFXPD-LR), Director of Plans, DCS/Plans and Programs. This group produced and disseminated AF Objective Series (AFOS) studies to fulfill its charter of formulating long-range objectives and producing conceptual guidance on future wars. However, just as their predecessor the FSPO, they were classified TOP SECRET which severely limited their distribution. The division was also given the formal responsibility of reviewing ."..all formal public releases and Congressional testimony of senior AF and Joint Staff officials." Lastly, the division was linked with the Doctrine Branch to produce synergy and congruence in developing the products from these two divisions within plans. However, as Whiting and Dale note, the partnership was not fruitful and in fact seemed to hinder the long-range planning efforts. 28

The Concepts Era (1964-1978)

Long-range planning underwent numerous organizational and procedural changes during this period. Two significant modifications of the process were the joining of plans and operations within a DCS and the modification of the planning document to tie it closer to the Plans, Programs and Budgeting System (PPBS).

In November of 1976, the Air Staff underwent reorganization, resulting in long-range planning being consolidated in the Directorate of Concepts, Concepts Development Divi-

sion (XOCC), within the DCS/XO. This is significant because for the previous twelve years, long-range planning had once again evolved into a fragmented process within the Air Staff. Although hindered by non-related additional responsibilities tasked from DCS/XO, XOCC was able to produce several noteworthy projects. Most notable of these was the Air Force's long-range planning document, *Long-Range Capability Objectives* (LRCO). Although, in part due to the complexity of being coordinated across the Air Staff, it took six years for the LRCO to be published.²⁹

The LRCO was disseminated to the field units in early 1978 as a SECRET document and was tied to the PPBS cycle. It provided ".specific capability statements for use in developing Mission Area Analyses and Mission Element Needs Statements." As Whiting and Dale notes, it was a milestone in the planning and programming process, but it probably enjoyed little actual impact. They state it is questionable as to whether the Air Staff or MAJCOM planners used the 150 pages of text to lay the foundation of each MAJCOM's Command Objectives Plan.³⁰

The Interchange Era/Renewed Efforts to Institutionalize (1978-1996)

Long-range planning underwent several reorganizations during this period, but these were overshadowed by two significant changes. The more important change for long-range planning involved the inclusion of high level management in the process and the renewed effort at institutionalization.

Following the initial reorganization, the Deputy Directorate of Long-Range Planning, Long-Range Planning Division, (XOXLP) presented its long-range plans concepts to senior AIR FORCE leaders through the Interchanges. The Interchanges were once-a-

month meetings with the Secretary of the Air Force and CSAF for long-range planning issues. These meeting allowed XOXLP to receive feedback and guidance to include in the official long-range plans. Interchanges survived until the late 1980's, but were more infrequent than originally intended.³¹

Several important long-range projects were produced during this time, culminating in the CSAF establishing a special assistant to study the institutionalization of long-range planning. *Global Reach—Global Power*, first published in 1990, guided the Air Force's planning efforts in the tumultuous draw down of the early 1990's. CSAF General Merrill McPeak created a Revolutionary Planning Office responsible for chartering such studies as *Air Force 2025* and *New World Vistas*. Both of these studies involved organizations outside the Air Staff, Air University in the former and the Scientific Advisory Board in the latter. These studies and the observation by senior leaders that long-range planning was actually being executed as long-range programming provided the impetus for General Fogleman to create a Special Assistant for Long-Range Planning. This office was tasked to develop a plan to institutionalize long-range planning within the Air Force. It took over this responsibility from the Strategic Planning Division for the Directorate of Plans (AF/XOX).

History's Insights

The history of the long-range planning process reveals a series of attempts to institutionalize it at the Air Staff level. Each attempt was pursued earnestly and they resulted in some worthwhile products. However, none of the changes ever took root and produced lasting results for the Air Force. Just as important, most of the long-range planning products failed to make an impact on the rest of the Air Staff or the MAJCOMs.

The analysis done by Whiting and Dale identifies several trends in long-range planning efforts within the Air Staff. These trends are certainly not an absolute prescription for failure, but they do offer an interesting correlation. The attempts to institutionalize it have failed to materialize under the following circumstances:³²

- 1. When Long-Range Planning was under the AF/XO.
- 2. When the planning was too closely tied to current operations and technology.
- 3. When senior leadership was not directly involved in the process, to include when the process was not headed by a general officer.
- 4. When the planning documents were close-hold and not accessible to all levels.
- 5. When the process was reactive to the current decisions, versus being a proactive process which defined the future tasks of the organization.
- 6. When the process was not closely linked to the budgeting process.

This is not an all inclusive list of trends, but it does shed some light as to what organizational theory areas deserve exploration for this study. The next chapter will examine these areas, as well as the objectives of long-range planning.

Notes

¹¹Captain Stephen N. Whiting and Captain Thomas K. Dale, "Air Force Long-Range Planning: Institutionalization Revisited," Report for Major General John Gordon (HQ Air Force, Air Staff History Support Office), 1-8. The outline/facts for the historical periods and the inferences from them on the history of long-range planning draw heavily from this source. Areas where primary source data was readily available have also been researched and annotated.

¹²Michael H Gorn. *Harnessing the Genie: Science and Technology Forecasting for the Air Force 1944-1986*, (Office of Air Force History, United States Air Force, 1988), 42.

¹³Ibid., 42.

¹⁴Ibid., 49.

¹⁵Herman S. Wolk. *Planning and Organizing the Postwar Air Force* 1943-1947, (Office of Air Force History, United States Air Force, 1984), 138-139.

¹⁶Ibid., 194-195.

¹⁷Whiting and Dale, 9. For a more detailed discussion of the evolution of this team see pages 9-14.

Notes

¹⁸Robert Frank Futrell, *Ideas, Concepts, Doctrine: Basic Thinking in the United States Air Force 1907-1960, Volume I*, (Maxwell AFB, AL: Air University Press, 1989), 306.

¹⁹Whiting and Dale, 10.

²⁰Ibid., 10-11.

²¹Ibid., 11.

²²Ibid., 12-13.

²³Gorn, 61-69.

²⁴Ibid., 88.

²⁵Ibid., 98-102.

²⁶Ibid., 88-116.

²⁷Whiting and Dale, 17-20. This section also contains a discussion on the wide acceptance of the AFOS, but low impact it had on real decisions.

²⁸Ibid., 18.

²⁹Ibid., 22-31.

³⁰Ibid., 31-32.

³¹Ibid., 32-41. Long-range planning evolved from the XOXLP to XOXIP to XOXFP. It was separated from doctrine in the XOXIP move and then was brought back together with doctrine in the XOXFP move. This section contains a definition of each of these acronyms and description of the changes mentioned.

³²Ibid., 1-3. These are the basic inferences from the collection of facts within this paper. They coupled with the organizational theory discovery in the next chapter will form the basis of the analysis of the two organizational alternatives in chapter four.

Chapter 3

Organizational Objectives and Impediments

As the role of the Air Force in future American military strategies evolves, we often find that the required tasks grow both larger and more complex.

— Lawrence P. Farrell, Jr.

All organization is and must be grounded on the idea of exclusion and prohibition just as two objects cannot occupy the same space.

—Authur Miller

Regardless of where it is placed, long-range planning has a set of common objectives to accomplish and some important challenges to its implementation. I first describe the objectives and interactions of long-range planning. Second, I discuss the challenges to successful implementation of long-range planning. Third, I provide some concluding thoughts to set the stage for the analysis of the organizational alternatives.

Objectives and Interaction

Knowing how a process has evolved sheds some light on potential productive and problem areas, but does not fully describe the why and how questions surrounding long-range planning. The logical place means to answer the why question is by delineating the objectives in the process. Following that, I outline how the process interacts with other processes.

From an organizational perspective, long-range planning involves the application of both intuition and analysis to determining future positions one's organization needs to attain. It charts your journey to future success. It keeps one focused on the future as well as the present. It reinforces the principles espoused in the mission, vision, and strategy. It encourages cross-functional planning and communication. It builds a bridge to the short-term tactical planning process. It encourages leaders to look at planning from a macro perspective. It should save time, reduce conflict, and increase the power of human endeavor. It is a process that brings people together to translate your mission, vision, and strategy into tangible future results.³³

The basic objective of the process in the USAF is to assist the Air Force leadership in developing future strategic and investment alternatives, which should lead to force structure, strategy and resource decisions. However, it is more complicated than this simple statement implies. In order to investigate this issue further, I examine the role of long-range planning in the following areas: mission statement objectives; uncertainty and establishing priorities; relevance in decisions; and, visionary aspects.

Mission statement

Several objectives are essential to the institutionalization of the process within the Air Force. As defined in a Corona issue paper for the Corona 1996, the objectives of the process are:³⁴

- 1. Identify the demand for future Air Force capabilities based on the process's iterative assessment of the strategic environment.
- 2. Articulate a vision that is understood and motivates the Air Force to think of new concepts and approaches to future problems, but is also accepted by the external community OSD, Joint Staff, Congress and the other services.

- 3. Develop a range of possible institutional strategic choices based on the Air Force's core competencies, vision and institutional goals and objectives beyond the FYDP.
- 4. Ensure that the process is participatory in that the outputs of the MAJCOMs LR/strategic planning functions are integrated into and utilized to assist the Air Force's in defining the total future demand and supply.
- 5. Generate outputs that are auditable and replicable through a well-defined, iterative but flexible process.

These formal objectives accurately describe what long-range planning is supposed to accomplish. However, there are several other factors, which help explain further the "why" question concerning the process.

Uncertainty and Priorities

As the world's preeminent military power, the United States no longer has a single threat to drive innovation. The enemy is no longer certain and the threat can range anywhere on the spectrum of conflict. The spread of weapons of mass destruction (WMD) and easy access to technical means to produce other weapons also compound America's problems. This combined with declining budgets and reduced force structures require the more efficient allocation of resources. There is strong political and economic pressure to balance the budget, and the military is a logical target for spending cuts. This implies that the services must be positioned to compete with each other to provide for the nation's defense. Also affecting the need for planning is the increased tempo of current commitments, which often preclude the ability to plan for tomorrow's conflict. Moreover, long-range planning is needed to establish strategic priorities during a period of tight budgets, technological opportunities, and uncertain enemies. Establishing these priorities will allow the USAF to better position itself to provide a broad spectrum of capabilities in support of the nation's security.

Relevance in Decisions

On February 24, 1995, General Fogleman stated "It's important to figure out how we are going to get where we need to be if we are going to stay relevant...in a period in which we see a downturn in resources." Relevance can be measured in terms of organizational productivity. Productivity refers to the relationship between the output of the process (an integrated system of decisions) and the amount of resources expended in production. Effectiveness and efficiency in the use of resources are the keys to growth in productivity. The ideal measure of effectiveness would be both valid and reliable, as well as easy and inexpensive to obtain. Efficiency is the achievement of the greatest output for the least input. "The acid test for any strategic planning process is the degree to which it affects the ongoing behavior of the organization. The strategic plan needs to become the template on which organizational decisions are based." The desire of the Air Staff should be to have a process which efficiently uses the resources in making effective decisions for long-range investments, especially in a time of limited resources.

Vision

The long-range planning process should yield a strategic vision. The vision should articulate the contributions of air and space power to support joint warfighting and chart the path of change for USAF combat capabilities, personnel and support capabilities. This vision should serve as front-end guidance for the resource allocation process. In this manner, the process will be responsible for ensuring that the forces to be provided by the USAF will provide the right operational capabilities to meet future needs.

Interaction

Long-range planning is linked to many other processes. Those that are most pertinent to this study are the Modernization Planning Process (MPP), the Program Objectives Memorandum (POM), and strategy formulation.

MPP/POM

The MPP/POM processes, which are the MAJCOM tools for planning, programming and budgeting, lack a formal set of strategic objectives to provide front end guidance and a review of the product output to see if they achieved the desired effects. The key to effective planning is to link the emerging process to the MPP and POM build. This can accomplished by linking longer-term issues into the mainstream planning and programming at the MAJCOM. Dr. Clark Murdock, Acting Deputy Director of Strategic Planning, explains that the Vision and the Long Range Plan create a cascading effect as guidance flows through the MPP to the POM and budget processes. This allows the process to integrate ideas and priorities across the entire Air Force as one moves from plans to programming.

Strategy

The process should be iteratively linked to the strategy process. Long-range planning interacts with the strategy formulation process both from outside and inside the Air Force. From outside the Air Force, the National Security Strategy (NSS) and National Military Strategy (NMS) are linked to the planning process, as it should be used to formulate national objectives. These objectives are then viewed by planners in the context of the future environment and the impact it will have on them.⁴² These insights then feed into the

strategy process within the Air Force. Within the Air Force, "Strategy epitomizes the conceptual passage from planning (ends oriented) to programming (means oriented) and can greatly help in resolving planning uncertainties attending the decision as to what ought to be programmed."

Challenges

Long-range planning has several procedural and organizational hurdles to overcome if it is to be successful. I have categorized the issues into the following areas: top management participation; politics/control; focus/division; communication/feedback/integration; decision making; and span of control.

Top Management

Top management cannot assume that it can entirely delegate the planning function to the planners. They must review the products of the process and be ready to support them. Also they often reject the formal planning mechanisms and make intuitive decisions which conflict with the formal plans.⁴⁴ Finally, they must not confuse institutionalizing the process with making it a permanent organization. It is the process that matters, the iterative thinking that must be infused within the Air Force is what really matters.

Politics/Control

Planning can inject politics into an organization. This is because planning means power or control, at the very least over the processes by which decisions are made and interrelated, but more commonly over the premises that underlie those decisions if not over the actual decisions themselves. This transfer of power "to make things happen" has the highest priority among basic factors that concern management theory.⁴⁵

The problem rests in the fact that planning cannot be demonstrably proven to be more efficient than other methods of making decisions. When battle lines are drawn between analysis and intuition, political conflict inevitably occurs because both sides rest on shaky ground. Intuition or patterns of consistent preferences rely on power of vested authority to overcome the analysis of planning for decisions. In addition, an obsession with control seems to reflect a fear of uncertainty especially in the impact it can have on carrying out short-term operations. The obsession leads to an aversion of risk, which means a reluctance to consider truly creative ideas and truly quantum changes, both of whose effects are unpredictable and so beyond formal planning.⁴⁶ For long-range planning to be effective and make an impact, a healthy balance between intuition and analysis must be embraced by decision-makers.

Focus/Division

Competition and uncertainty often produce another unpleasant side effect concerning planning, focus or attention. The organization can become so engrossed in current problems that insufficient time is spent on long-range planning and the process becomes discredited.⁴⁷ Previous events reveal a trend that when the process is commingled with a directorate responsible for current problems, it often cannot look beyond the current crisis to engage in the long term view.⁴⁸ As one former action officer who worked long-range plans on the Air Staff put it, "we simply had too many blue suspense slips, and not enough time to think about the future."

Additionally, previous events have also revealed the inherent difficulties in defining the lines of responsibilities for planning. The difference between the categories of planning is a most contentious issue between operations and plans. Operations will always have a planning function to enhance its own decision making process. The gray area concerns planning which impacts both long and short term decisions and who will have control over the process.

Communication/Feedback/Integration

Effective communication is a key component for successfully implementing a long-range planning process. Even if the process develops a clear strategic vision, poor communication of the vision across the organization can result in it failing to have an impact. For the process to have a lasting impact on the organization, many people in the organization must buy into the plan, making proper communication of the vision crucial.

Establishing an audit trail for the process' impact within the organization is also crucial. This enables the organization to ensure the plans are used as standards or metrics for measuring the performance of the interaction between processes. Top management is able to review, challenge and monitor the strategies of the organization. However, this is good for accountability, but it may be difficult to maintain due to its administrative aspects. This area has the potential to be extremely difficult to manage. Unless top management helps to create a climate in which the process is not only used, but seen as beneficial, the process will fail.⁴⁹

Even if the vision is communicated and audited successful, the process of integration will not be complete. To complete the integration, the planners themselves must be able to be in touch with the operations in order to access the needed hard and soft data. They must particularly be in touch with the implementation of the strategies at the execution levels, to ensure the feedback loop can be complete.⁵⁰

Decision Making

Decision-making and choice are important parts of problem solving. Decision making involves the process of identifying the problem, generating alternative solutions, evaluating the choices and settling on solutions. The rest of problem solving involves the implementation of the solution and the monitoring of the implementation.⁵¹

Planning is a formalized procedure to produce an articulated result, in the form of an integrated system of decisions.⁵² The purpose of planning is to inform and facilitate the decisions as to what ought to be programmed. The job of planning is to isolate and deal with the uncertainties that bear upon that decision. If what ought to be programmed is known or the uncertainties that bear upon what ought to be programmed are resolved, then the planning is done.⁵³ However, we live in a most uncertain world, which requires systematic planning for the future. The inherent difficulty in decision making is how much impact the planning process will have on the actual decisions rendered. Previous events once again reveal the lack of impact planning has had on important decisions made by senior leadership.

Span of Control

The need to control processes within an organization has existed since the beginning of organized efforts. Control takes the form of nourishing desirable actions, while discouraging undesirable actions, with the objective of maintaining operations within a range of expected behavior. Central to this proposition is recognition of loss of equilibrium or out of the range performance and application of corrective actions.⁵⁴ This assumes the time and information necessary for supervisors to be able to recognize the pat-

terns of behavior of subordinates and to correct deviations which are detrimental to the organizational objectives.

Span of control concerns the number of persons one supervises and the ability to recognize and apply corrective actions. The management literature is mixed on what number of subordinates can be effectively controlled.⁵⁵ Some expert's claim one can not supervise more than five or six direct subordinates whose work is interlocked. Others claim that there is no absolute number, but is dependent on the situation. The number of subordinates effectively supervised by a single superior will vary with the complexity of the objectives, time necessary to accomplish them and the demands that tend to reduce the supervisor's time available.⁵⁶

The numerous attempts to institutionalize long-range planning have all been identified with organizations, which could not effectively control the process. Moreover, once the process was out of control, the personnel assigned to carry out the process were often siphoned off to work on more pressing issues.

Conclusion

The questions posed in the beginning of chapter two still do not have absolute answers. In anything as complex as a large organization, trying to quantify the contribution of any one process to the whole is next to impossible. The simple truth is that long-range planning is intended to facilitate an organization's capability to translate its mission, vision, and strategy into tangible future results.⁵⁷ The rub with long-range planning is determining the amount of the tangible results for which the process is responsible.

These last two chapters have indicated that long-range planning has not enjoyed much success, moreover, it has some formidable hurdles to pass before it can be success-

fully institutionalized. Perhaps rather than attempt to assign an absolute value to long-range planning, we should view it through the eyes of Carl Builder. He stated that "planning need not produce plans to be successful; to be successful, planning must inform and facilitate the decision for which the planning was undertaken."

The Air Staff has recently undergone another reorganization in order to address these problems with long-range planning. This latest attempt to institutionalize long-range planning has resulted in the creation of a DCS Plans and Programs, which I will discuss in more detail in the next chapter.

Notes

³³George L. Morrisey, *A Guide to Strategic Thinking: Building Your Planning Foundation*, (New York: The Free Press, 1994), 5.

³⁴Air Force, Office of Special Assistant for Long-Range Planning, Corona Issue Paper, Fall, 1996), 1.

³⁵Michael O'Hanlon, *Defense Planning for the Late 1990s: Beyond the Desert Storm Framework*, (Washington, D.C.: The Brookings Institution, 1995), 3.

³⁶Clark A. Murdock, "Mission-pull and long-range planning", Joint Forces Quarterly, Autumn/Winter 94-95, 30.

³⁷ Wade P. Hinkle, James P. Bell, Andrew W. Hall and Caroline F. Ziemke, "New Techniques for Long Range Planning", IDA Paper P-3204 (Alexandria, VA: Institute for Defense Analysis, 13 Sep 1996) 1-1.

³⁸John B. Minor, *Organizational Behavior: Performance and Productivity*, (New York: Random House, 1988), 21.

³⁹Paul E. Mott, *The Characteristics of Effective Organizations*, (New York: Harper & Row, 1972), 20.

⁴⁰Timothy Nolan et al. *Plan or Die! 10 Keys to Organizational Success -- Thoughts on Strategic Planning*, (San Diego, CA: Pfeiffer & Co., 1993), 149.

⁴¹Dr. Clark Murdock, "Institutionalizing Long-Range Planning (Linking Planning to Programming)" briefing, AF/LR, 20 August 1996, 3.

⁴²David A. Ochmanek and Stephen T. Hosmer, with John Bordeaux, "A Context for Defense Planning", RAND draft report DRR-1247-AF (Santa Monica, Calif.: RAND, January 1996), 1.

⁴³Carl H. Builder and James A. Dewar, "A Time for Planning? If Not Now, When?", Parameters, Summer 94, 11.

⁴⁴Henry Mintzberg, *The Rise and Fall of Strategic Planning*, (New York: Free Press, 1994), 155.

⁴⁵Carl Heyel, ed., *The Encyclopedia of Management, Third Edition*, (New York, N.Y.: Van Nostrand Reinhold Company, 1982), 797.

Notes

⁴⁶Mintzberg, 198-202.

⁴⁷Ibid., 155.

⁴⁸Whiting and Dale, 2.

⁴⁹Mintzberg, 155.

⁵⁰Hinkle et al., 2-28 - 2-29.

⁵¹Dennis W. Organ and Thomas Bateman, *Organizational Behavior: An Applied Psychological Approach*, (Plano, TX: Business Publications, Inc., 1996), 138.

⁵²Henry Mintzberg, *The Rise and Fall of Strategic Planning*, (New York: Free Press, 1994), 12.

⁵³Carl H. Builder and James A. Dewar, "A Time for Planning? If Not Now, When?", Parameters, Summer 94, 5-8.

⁵⁴Heyel, 148.

⁵⁵I found numerous authors claiming to offer prescriptions for span of control, while others outlined a number of contextual elements which impact span of control.

⁵⁶Air Force Regulation 20-1, *Organizational Principles and Policies for the USAF*, (Washington, D.C.: Department of the Air Force, 15 April, 1953), 67.

⁵⁷Morrisey, 5.

⁵⁸Builder and Dewar, 5.

Chapter 4

Organizational Options

For this thing is too much for you; you are not able to perform it by yourself.

— Jethro to Moses

Jethro correctly analyzed the situation Moses was experiencing. He had too much to accomplish, his span of control was too large for one person. He needed to divest himself of some of his activities. Major General John Handy, Director of Programming, AF/XPP, stated that before the reorganization, the AF/XO was encumbered with long-range planning and unable to focus on it due to day-to-day operations which took priority. He further stated that the recent reorganization was intended to correct this problem of emphasis for long-range planning. This chapter discusses the goals of the reorganization concerning long-range planning, describes the current organization and common processes for long-range planning, and an alternative structure and any differences in the common processes.

Goals of the Reorganization for Long-Range Planning

Major General Handy worked closely with General Fogleman on the reorganization effort on a weekly basis and is considered by some on the Air Staff as the key expert on issues concerning the reorganization. Handy stated that "Air Force officials proposed the

changes because of a variety of concerns: those who develop and implement long-range plans did not have enough clout at headquarters; the deputy chief of staff for plans and operations [sic] was overseeing too many functions that had little to do with operations and not overseeing others that were related to operations; Air Force planners and programmers were not effectively organized. The changes will give long-term planning more status and a higher priority in the Air Force's hierarchy." However, while the reorganization fixed the priority problem with long-range planning, it also has exasperated the horizontal communication and coordination processes required at the Air Staff. In the next section, I describe the status quo and an alternative which should alleviate some of the communication and coordination problems.

Organizational Choices

Now that the goals have been described, it is time to briefly describe the two organizational choices for the Air Force and detail the processes of each choice. I describe them from a macro view and detail how it should enhance long-range planning.

Option 1: Maintain the Status Quo

This option concentrates on maintaining the long-range planning process within the status quo. The key underlying assumption is that the current processes are sound in their functional attributes and that current organizational alignments meet the objectives of the charter for long-range planning. Additionally, this option assumes that for planning to be useable it must consider fiscal constraints. This is accomplished by combining plans and programming within one DCS.

The organizational structure should improve the ability of senior leadership to make decisions and to support the current operations and long-range planning efforts. The DCS Operations now is able to focus on day-to-day operations and policy. Conversely, the DCS Plans & Programs is able to act as an integrator of ideas and priorities across the Air Force.

Common Processes

With the current mission statement (see Chapter three) for the long-range planning process, there are several processes and organizations that are common and critical to the status quo and the alternative I propose. These processes all have either an impact on the development or implementation of the long-range planning process. Specifically the following are common areas of interaction: the Modernization Planning Process (MPP)/Program Objective Memorandum development process (POM); the Air Force Corporate Structure (AFCS); the Board of Directors (BoD); and, the Joint arena. Figure 1 is a depiction of the interaction the process has on the MPP/POM and the role of the BoD.

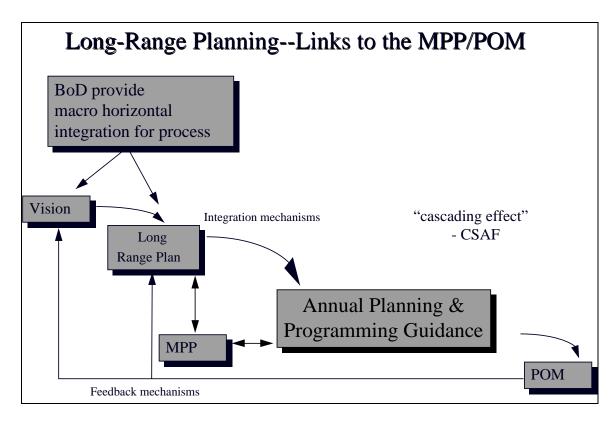


Figure 1 — Links to MPP/POM

MPP/POM

The Long Range Plan contains information that is needed by a number of Air Force communities. MAJCOM-level planners and program managers require the future context developed through the long-range planning process to accomplish their own processes. Air Force planners and programmers need to develop plans and programs with the same set of assumptions about the future. The two major processes the Long Range Plan impact are the MPP and POM.

The MPP is an internal USAF process, which determines the Air Force modernization needs, which are then integrated into the DOD acquisition process. The MPP has a 25-year time horizon for modernization planning for the Air Force. The purpose of the MPP is to identify needs and to recommend material and non-material solutions to satisfy

those needs. Mission Area Teams (MAT) are the primary tools of the MPP and they produce Mission Area Plans (MAPS). The MPP has re-energized planning within the Air Force, and, by decentralizing the planning process, has provided for greater participation and acceptance across the Air Force.

MAJCOM and Air Force-level programmers make critical, but very time sensitive choices about the Air Force POM. It is vitally important that they operate with a complete understanding of the end state desired by planners for each of the issues they work.⁶¹

Each military department prepares and submits its POM to the SECDEF biennially. The POM identifies program requirements for the next six years. One of the key objectives of the POM is to provide the required capabilities identified in the MAPs. Each of the MAJCOMs are responsible for preparing and presenting POM proposals to the Air Staff, which are then used to prepare the Air Force POM.⁶²

AF/XPX envisions the process having a meaningful impact on the Air Force by interacting with the MPP/POM. (see figure 1) The Long Range Plan is derived from the Air Force Vision statement (*Global Engagement*) and is intended to chart the path of change for the entire Air Force. It should provide a framework for change and measurable and accountable steps for implementation. In addition, it will outline AF activities and steps to continue to tailor Air Force capabilities to meet the Joint Vision 2010 objectives. The Long Range Plan provides the front-end guidance to the MPP and Annual Planning and Programming Guidance (APPG). The APPG is then used to provide guidance for the POM preparation. Throughout these processes the feedback mechanisms should be iteratively involved with each process.⁶³

Developing the Vision, the Long Range Plan, Mission Area Plans, or the Program Objective Memorandum are each difficult but vital tasks. The success of the system depends on the degree to which each process can guide the next in the system as a whole. The process of integrating these elements is critical to achieving the Vision. The Long Range Plan is organized to give the MAJCOMs specific guidance. It is designed to describe future threats and the security environment of the United States, to describe how the Air Force will address future threats, and to provide guidance for the specific actions the Air Force will take to build capabilities required to meet the future threats.⁶⁴

Accountability for performance under the plan is critical to its success. Regular review by the Air Force's most senior leadership will ensure their directions are carried out in the manner originally designed. Ultimately, the Vision cannot be realized unless the Air Force enables the long-range planning process to have a cascading integration effect and influence in the stewardship of its resources.⁶⁵ The bottom line is that long-range planning will provide top down, front-end guidance, an effective integration mechanism, and a metric for feedback on performance of the process.

Air Force Corporate Structure

According to General Handy, the Air Force Corporate Structure (AFCS) is designed to provide the Air Force with a corporate view on decisions concerning policy and funding issues. The AFCS is a horizontal integration mechanism for issues across the Air Force. The chart below (see figure 2) depicts from a macro view that the AFCS is envisioned not as a standing stovepipe organization, but as a integrative organization for the Air Force and for all key parts of the Air Force Long Range Plan.

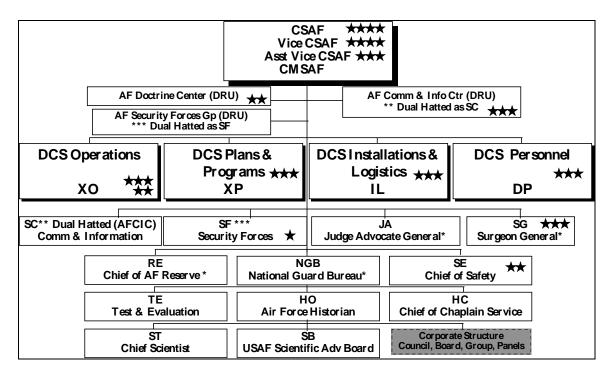


Figure 2—USAF Air Staff Organizational Chart

The AFCS involves people from all Air Force levels and provides senior leaders with "corporate" positions on issues. In addition, it will help to ensure the Long Range Plan's guidance is adhered to in major decisions. It is the process that helps break down the vertical "stovepipes" within the Air Staff and bring consensus to all major decisions. The AFCS is then critical to successful institutionalization of long-range planning within the Air Force.

The AFCS is a multi-layered system that embraces the analysis and synthesis approach to decision making. (see figure 3 below) There are four layers of groups (SAF representation at each level) within the system which ultimately report to the Air Force Council (described earlier in Chapter Two). The following sections describe the groups and their functions from the most to least senior level.

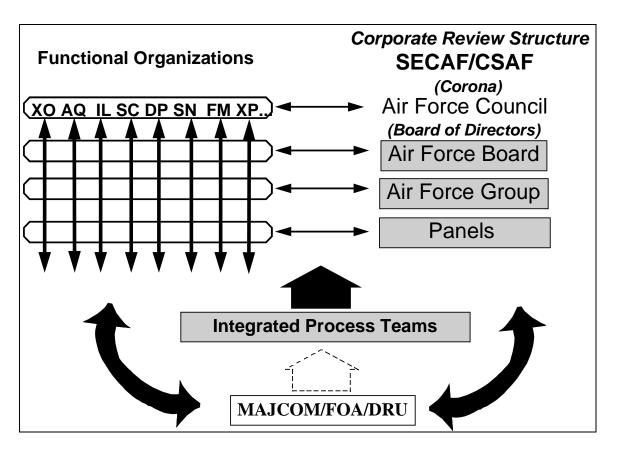


Figure 3—AFCS Process Chart

The Air Force Board (AFB) is a forum for the senior leadership to make decisions on major program objectives and problems. It integrates the corporate reviews with its collective judgment and experience to enhance the decision making process.⁶⁷

The Air Force Group (AFG) serves the senior leadership as the first corporate integrated review and evaluation of the programs and issues. They enhance the decision making process by doing much of the preliminary screening prior to issues going to the AFB. The AFG's has two main information gathering mechanisms. They are able to gather information by tasking Panels and Integrated Process Teams (IPT) to develop options. The AFG is empowered with "off-the-table" decision authority pertaining to what options the AFB actually reviews for issues.

Members of the AFG are Colonels and civil servant equivalents, and is chaired by the Deputy, Air Force Programs and Evaluations. The goal of the AFG is to provide a thorough review and evaluation of programs presented by the Panels enroute to the AFB. In addition, the cross-functional experience provided by members will enhance decision making.

The Panels are responsible for the development of programs and proposal evaluations for presentation to the AFG. They are considered a "center of expertise" at SAF and HQ USAF for a unique mission or support area. The membership for a Panel consists of appropriate personnel from across the Air Staff. The Panels review and screen resource allocation issues and serve as the primary support to the corporate resource allocation process. The key criteria for selection are functional expertise and demonstrated problem solving ability.

The Integrated Process Teams (IPTs) are empowered to receive, review and make recommendations on AF corporate programs and issues. IPTs are the single point of contact to the MAJCOMs for specific programs and interface with the corporate structure primarily through the panels. They "formalize" the informal networks that exist across the HQ USAF staff. The teams consist of people responsible for Program Elements (PE), representatives from key functional organizations, and external agencies as required. The IPT Chief is the designated Lead Program Monitor.

The ultimate goal of the IPT is to improve the horizontal flow of information across the entire staff and to become a single point of contact for customers. The IPTs are key to institutionalizing a corporate approach to decision making throughout the Air Force. Empowerment and training are the keys to the process. Team members must be given the

training, time and resources to exercise this authority concerning issues the IPT is working. However, one needs to recognize that empowerment in a military system, especially at HQ USAF is often times limited. In addition, the IPT members must be free from any constraints placed upon them by their parent organization. These constraints come in the form of functional duty requirements and DCS specific guidance or viewpoints.

Board of Directors

Since its inception, the long-range planning effort has been guided by the senior leadership throughout the AF. Secretary of the Air Force, Dr. Sheila Widnall, established the Board of Directors (BoD) (Fall, 1995) to help guide the long-range planning process and ensure Air Force-wide ownership of the long-range vision.

The three star level BoD represents a complete cross-section of the Air Force and incorporates both the senior leadership and support from all levels. Analytical support is provided by both the AF/XP staff and IPTs from all Air Force levels. However, the ultimate responsibility for decision making, direction setting, and implementation enforcement rests with the SECAF, CSAF and the four star CORONA participants.

Initially, board members included MAJCOM CVs and Air Staff 2-letter offices. At the June 96 CORONA, the four-stars directed that this group be temporarily reinforced by key one-stars from all Air Force levels. The Board continues to be led by the Vice Chief of Staff who provides a broad and overarching understanding of AF challenges and contributions.⁶⁸ Therefore, the long-range planning activities that are implemented are the product of the entire Air Force.

Joint Areas

Ultimately, the long-range planning process impact on Air Force internal planning is not a true measure of its impact. The true measure is the degree it shapes the Air Force inputs in the joint arena. The most critical joint long-range planning involves the Joint Requirements Oversight Council (JROC). The JROC ties the acquisition and requirements process to the warfighter. Additionally, it is the link with the Services, CINCs and OSD on requirement issues. The Director of Joint Matters, AF/XOJ, is the Air Force integrator and ensure the interaction of long-range planning with the JROC by the inputs it makes at the Joint Review Board (JRB).

The JRB convenes before the JROC. The JRB members comprise the Service's JROC Back-Up Flag officers and the DJ-8 (Deputy Director for Force Structure, Resources and Assessment). It is designed to allow for a more thorough review of issues before they reach the 4-star level. The JRB reviews all JROC subjects before the JROC meets, this includes all major programs, information briefs, JWCA products and special study groups (e.g. Combat ID, UAV, etc.). This enables the forum for addressing requirements issues to occur at a lower level.

The JRB is also the focal point for integration between the JWCA and the JROC. The JRB reviews all JWCA issues en route to the JROC in detail. Air Force JWCA POCs are directly involved in the new Enhanced Corporate Structure through their membership on the IPT. This involvement is critical to providing continuity and linking the JWCAs and IPTs. This process should ensure that a single Air Force position on issues is brought forward to the Joint arena.

AF/XOJ staffs both the joint action process and the "Tank" process. They play a critical role in ensuring a consistent Air Force approach to all joint issues. AF/XOJ personnel review inputs on "J" papers, oversee formulation of Air Force positions and serve as the administrative focal point between the Joint Staff and the Air Force.

Each of these processes I have described are common to both of the organizational options I present. In option two, I discuss any deviations from this. Each of these processes are critical to ensuring that the long-range planning process is successfully institutionalized, regardless of which of the two can best negotiate the obstacles it faces.

Option 2: Consolidate Plans & Programs under the AF/XO

This option proposes that within the Air Force there should exist a single planning function and that it should be centralized under one DCS as before the reorganization. The DCS Operations would become the DCS Operations, Plans and Programs. All of the current structure, functions and responsibilities within AF/XP would be shifted to the AF/AXO. This option addresses the difficulty of integration of planning efforts across two separate DCSs.

This option should improve the Air Force's ability to convey a unified message on policy and resource issues. All planning would reside under the XO who would be in charge of integrating all planning activities for the Air Force. In addition to the planning activities currently within XO, the AXO would provide an array of long-range planning options to the AFCS for horizontal integration. This option appears to be simply a revisionist option of returning all of the planning functions to the AF/XO. However, they would now reside at the Deputy DCS level and would be combined with the programming function versus having long-range planning under AF/XOX. The key difference is

that long-range planning would not only have a more senior advocate, but it would also be tied to programming. Unlike the situation before the reorganization, where there was an AF/XO and an AF/PE, now AF/XO would have not only all levels of planning, but would incorporate the programming functions formally within AF/PE also.

The key differences between option two and option one is the degree of horizontal communication/integration/feedback necessary. Option two would still have the same process interaction, but the AFCS's significance would be lessened on issues concerning long-range planning. Additionally, the interaction with the joint arena would not require as much transfer of information across DCS's.

Now that I have delineated the two options, I must compare them against the criteria I defined in chapter three. In the next chapter I compare them and determine which is a better choice for overcoming the hurdles to long-range planning.

Notes

⁵⁹Major General John Handy, AF/XPP, interviewed by author, 23 January 1997.

⁶⁰Steven Watkins, "Reorganization Will Reflect Mission Changes," *Air Force Times*, no. 21 (December 23, 1996): 3.

⁶¹Murdock, slides 19-21.

⁶²Programming and Budgeting System, *PPBS Primer*, 7th ed., May 93.

⁶³McIlvoy, slide 18.

⁶⁴Ibid.

⁶⁵Ibid., notes page slide 18.

⁶⁶Handy interview.

⁶⁷Jake Henry, Implementation Plan, The Enhanced Air Force Corporate Structure, 1 November 1995. 1-14. Each of these definitions and the process explanations for the AFCS are derived from this source.

⁶⁸McIlvoy, slide 12.

Chapter 5

Comparative Analysis of Each Option

The judge weighs the arguments, and puts a brave face on the matter, and, since there must be a decision, decides as he can, and hopes he has done justice.

— Emerson

The concept of an organization involves a system where power is transferred from absolute authority through the various levels of the system to achieve the organization's objectives. Organizational analysis is the process of determining the most effective and efficient system (option) to achieve these objectives. In this chapter, the options are compared by describing their ability to ameliorate the hurdles to institutionalizing long-range planning. As a reminder, the hurdles (criteria) described in chapter three were: Top management participation, Politics/Control, Focus/Division, Communication/Feedback/ Integration, Decision Making, and, Span of Control. I describe each of these criteria and how each option measures up to them.

Top management participation

Strategic vision is generally viewed as the responsibility of the Chief Executive Officer (CEO) and not simply the product of his/her staff.⁷⁰ Many noted experts in the field long-range planning assert that for the process to be effective, its chief advocate must be

no more than one level removed from the CEO.⁷¹ For the Air Force, this implies that the CSAF must not only be involved in the long-range planning process, but also not far removed from the person most responsible for implementing it.

Option 1 involves the CSAF in the process and places the chief advocate one level below the CSAF. The AF/XP becomes the chief advocate for long-range planning. Long-range planning is better represented in senior level policy debates such as in the AF Council.

Option 2 also involves the CSAF, but places the chief advocate two levels below the CSAF. The AF/AXO becomes the chief advocate for long-range planning and all information for senior level policy debates would have to be filtered through the AF/XO. However, this option does give long-range planning a direct voice for "Tank" meetings. The AF/AXO in his capacity as DEPOPSDEP would bring the long-range planning more to the forefront of AF positions in "Tank" meetings.

In Option 1 there is one less level of command for the process to be passed through for review by the CSAF. Some would argue that in both cases, the DCS's are the chief advocate for the process, but in Option 1 the DCS is clearly more of a long-range planner than a mixture of it and current planning. In either option, I am convinced the CSAF will be intimately involved in long-range planning. However, Option 1 is a better choice to achieve top management participation not only because of the more senior advocate for long-range planning, but also due to the ability to have to have competing planning processes to represent.

Politics/Control

As General Handy reminded me, this is not about power, it is about the process. Kent and Ochmanek assert that the long-range planner will become the primary advocator for the Air Force. They will set the direction of the Air Force and ensure the decision makers in the joint arena and in Congress allocate resources to implement this direction. Is say this not to imply that there will be a power struggle over who makes important decisions for the Air Force, but to assert that this new emphasis on long-range planning is bound to affect the decision making process. This new role in the decision making process comes at the expense of other inputs to the calculus. As I described in Chapter Three, it comes often at the expense of intuition. It is controversial due to the often intangible contribution the analysis in the planning process makes toward the decision. However, if the planning process is going to make a positive impact on the decision making process it must have a role.

Option 1 presents the AF with opportunity to have a balance between intuition and analysis in decision making. In this option, AF/XP is the primary voice for analysis at the DCS level. AF/XP is often able to present analysis directly to the BoD, Corona or the CSAF and SECAF for decision making.

Option 2 on the other hand places the advocacy for analysis one level below the DCSs. In this option, the balance between intuition and analysis is more dependent on the personality and inclination of the AF/XO and his staff. I say this not to imply that the AF/XO will rely solely on intuition, but point out that the odds of striking a balance between the two forces is less than in Option 1.

Option 1 offers a more vigorous role for analysis in the decision making process. It can more easily avoid the pitfall of falling into patterns of preference or relying on intuition solely for decisions. It gives the long-range planning process a clearer advocate for including it in the decision matrix for the Air Force. The voice of analysis will not have to be filtered through one more level before it reaches the CSAF or SECAF.

Focus/Division

Focus is the most important word in planning.⁷³ "The planner must therefore be permitted to sustain a focus on future needs and opportunities if he or she is to perform the critical responsibilities of setting demand, developing innovative operational concepts, evaluating alternative investment plans, and developing and advocating the Plan."⁷⁴ One of the major reasons for the reorganization was Air Force leadership felt that the long-range planning and MPP functions were too stovepiped, and that options developed did not represent an integrated viewpoint and was too narrowly focused. As a result, many experts asserted that the decisions made concerning tomorrow's Air Force were being made on current issues, which increased the risk of acquiring the wrong capabilities for tomorrow's threat.

As I identified in Chapter Three, probably the most contentious issue involved in the reorganization is the issue of delineating clear lines of division between the levels of planning. It will inevitably lead to areas of overlap and decisions made in those areas will have major effects on the clearer divisions of planning.

Option 1 allows AF/XP to focus on long-range planning issues without interference from the day-to-day current planning issues. According to General Handy the reorgani-

zation divested the AF/XO from the responsibility for the long-range planning process and invested it with the AF/XP.⁷⁵ AF/XO retained responsibility for operational requirements, regional issues and contingency and deliberative planning. AF/XP is afforded the opportunity to be the primary Air Staff long-range planner. However, Option 1 clearly accentuates the inherent difficulties in delineating the division between current and long-range planning. Option 1 forces two DCSs to coordinate on the contentious planning issues which are not easily divided.

Option 2 puts all of the majority of planning into one DCS. It avoids the problem of coordinating across DCSs on many planning issues which fall into the gray area. However, although it resides within the AF/AXO staff, it is susceptible to some of the same focus problems that plagued long-range planning in the past.

Option 2 offers an advantage over option 1 in delineating the lines of division of planning responsibility. However, option 1 has a clear advantage in avoiding the focus problems. Past events have revealed that the focus problem is more difficult to overcome than the one of dividing planning responsibilities. Generally, option 1 is preferred for this criteria. It allows for a more clear focus of attention on both current and long-range issues.

However, I make this recommendation with two caveats. First, the AF/XP may run into the same focus problems which have plagued the AF/XO concerning long-range planning. The POM is an extremely important process, since it concerns funding and manpower issues. The XP may get caught up in the momentum of producing the annual POM at the expense of equal focus on the long-range planning process. Second, due

manpower issues which I discuss in more detail in the following chapter, the AF/XO may not be truly divested from the long-range planning process.

Communication/Feedback/Integration

How well the organization can horizontally communicate the products of long-range planning, audit their implementation and fully integrate them are key to the successful institutionalization of long-range planning. In order for the process to have lasting impact, most of the Air Force must accept it, making communication of the process crucial. Senior leadership must help create a climate acceptance of the process by extolling the merits of the process. In addition, the planners at all levels must be integrated into the process.

Option 1 has to communicate the Long-Range Plan across the Air Force, but more importantly to another critical DCS, AF/XO. It audits the performance of not only the MAJCOMs pertaining to adherence to the Plan, but also AF/XO. Option 1 uses the BoD and AFCS to integrate across the AF for development of long-range planning products.

Option 2 also has to communicate the Long Range Plan across the Air Force, but with one less DCS involved in the process. AF/XO would audit the performance of the MAJCOMs, and undertake an internal audit of its own performance. Option 2 uses the same integration processes, but the AFCS becomes less significant to the communication process, due to having to integrate with one less DCS.

Option 2 presents a more viable organization for ensuring the above criteria are met. Because it allows for the single DCS to ensure all of his subordinates fully understand the importance of the process. In addition, the audit is less likely to be controversial, since it

is an "internal" audit, but it also runs the risk of not being as accurate for the same reason. This option also allows for the grouping of all planning functions within one DCS, enabling the planning process to be integrated at all levels.

Decision Making

Decision making is a key subset of the problem solving process. It is the point of deciding upon the alternative courses of action produced by analysis. Planning is the effort to inform and facilitate the decision maker. It should allow the decision maker to isolate and deal with uncertainties that surround the decision. As I documented earlier, the decisions the Air Force senior leadership will face in the future will have great uncertainties bearing upon them. Long-range planning is a mechanism to understand uncertainties better and facilitate the decision making process. Although this criteria is closely related to the criteria of politics/control, the key difference is the ability of each option to isolate and deal with planning uncertainties.

Option 1 allows the long-range planning process to develop future contexts without being unduly constrained by current operations. It enables AF/XP to develop long-range products which have a balance of current operational "push" and technology "pull" elements. It presents not only a balanced approach to dealing with uncertainties, but presents them directly to the CSAF.

Option 2 presents a situation in which the future contexts run a risk of being constrained by current operations. As the products of long-range planning are coordinated at levels within a DCS responsible for both current and long-range planning, the process is

susceptible to being influenced by current issues. Once the uncertainties are isolated, they must be filtered through the DCS prior to the CSAF seeing them.

Option 1 presents a better organization for allowing the long-range planning process to have an impact on the Air Force decision making process. It allows for the development of planning contexts which are less constrained by current operations, while at the same time presenting them to the CSAF with ones less filter. It should enhance that process and help to ensure that our future capabilities match the future threat.

Span of Control

The long-range planning process must be effectively controlled if it is to be institutionalized successfully. For it to be controlled, the organization must be able to recognize the patterns of behavior for the process which deviate from the accepted range of performance. Keys to recognition are time and information. The top supervisor must have time available to analyze the feedback the organization is giving pertaining to the performance of the long-range planning process. Additionally they must have effective feedback mechanisms to ensure the essential information is gleaned.

Option 1 presents the AF with an organization with two DCSs responsible for critical functions within the Air Staff. This options allows each DCS more time to concentrate on their assigned functions. However, it requires the horizontal flow of information to ensure accurate assessments can be made by each DCS.

Option 2 provides the AF with one DCS responsible for these critical functions. It forces the AF/XO to spend less time assessing his areas of responsibility. However, it

allows for one less DCS from which the AF/XO must receive information to make his assessments.

With the two options I presented, this criteria would seem to be split as to which one is preferred. Option 1 clearly offers the Air Force with an organization which should have more time dedicated to the long-range planning process and to assessment. Option 2 has the advantage of a more efficient feedback system by reducing the number of DCSs information must flow across. However, the weight of events in the past concerning long-range planning clearly place the emphasis on providing the time necessary to monitor performance. Therefore, concerning span of control, option 1 is more advantageous for the Air Force.

Conclusion of Analysis

"Military endeavor best exemplifies the principles of organization because the punishment for poor organization can be swift and terrible. Government and industry may struggle under the handicap of poor organization, but for the military, the price is too high." As the quote so accurately points out, it is too high a price to pay for our nation to not have the best organization for long-range planning. The qualitative analysis has produced the option 1 choice, which is to maintain the status quo. (See table 1)

Table 1—Summary of Qualitative Analysis of Options

CRITERIA	OPTION 1	OPTION 2
Top Management Participation	X	
Politics/Control	X	
Focus/Division	X	
Communication/Feedback/Integration		X
Decision Making	X	
Span of Control	X	

Option 1 should overcome the impediments to long-range planning more effectively than option 2. It prevents the long-range planners from being commingled within a directorate responsible for current issues and affords them the viewpoint of being able to look beyond operations and equipment modernization issues. It places them closer to the CSAF, allowing them to have more direct interaction with top management. Additionally, it affords the long-range planning process the best chance at being embraced and seen as beneficial in the senior leadership decision making process.

However, I must caveat this analysis once again to reiterate that if the assumptions this analysis are based on change, then the analysis is moot. Specifically, if long-range planning fails to prove beneficial to the AF, and its significance wanes, then the criteria for analysis would change. Interestingly, the US Navy has recently reorganized to an organization which closely resembles the structure of option 2 from a macro view. Should

my assumptions proof false, the rationale and theory underpinning the Navy's reorganization might be worth studying.

Not withstanding, option 1 is the clear choice, but it does not come with impediments of its own. Specifically, the next chapter addresses the communication/ feed-back/integration issues raised in this chapter.

Notes

⁶⁹Heyel, 797-798.

⁷⁰Hinkle et al., 2-7.

 $^{^{71}}$ Wide consensus on this issue from every source that mentioned management participation in the process.

⁷²Glenn A. Kent and David A. Ochmanek, "Strengthening Planning Within the Air Force", RAND draft report DRR-1374-AF (Santa Monica, Calif.: RAND, May 1996), 22.

⁷³Morrisey, 1.

⁷⁴Kent and Ochmanek, 20.

⁷⁵Handy interview.

⁷⁶Alvin Brown, *Organization - A Formulation of Principles*, (New York: Hibbert Printing Company, 1945, 8.

Chapter 6

Implications and Potential Hurdles

Where there is no vision, people perish.

— Proverbs 29:18

No critic has ever settled anything.

— James G. Huneker

Often an organization reaches a point when its objectives become so diversified that the feedback and communication processes in the system break down and horizontal coordination becomes excessively difficult. When this occurs the organization must make corrections. This chapter describes potential communications inefficiencies in the current organization and solutions which might rectify them. The chapter first describes the symptoms that indicate a need for change in the current organization concerning long-range planning. Second, the potential solutions are then discussed in the order of least to most collateral effects for other organizations across the Air Staff.

Two key assumptions concerning these potential problems and solutions are critical to understanding the context in which I offer them. These assumptions can best be described as allotting sufficient focus and time for long-range planning to work. First, I assume that long-range planning will be supported beyond the current CSAF's tenure. If this current effort is diluted and frustrated across the Air Staff as others have in the past,

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then the solutions are a moot point. Long-range planning must be given sufficient time to make a real and lasting impact, but it must also not be allowed to be institutionalized with organizational flaws. Second, and closely related, I assume these potential problems do not simply arise over night. They too will take time for the actual Long Range Plan to be implemented and for the feedback mechanisms to respond. Now that the context of the solutions is clear, what does one look for in determining if the organization needs change?

As a reminder, the following are symptoms of organizational inefficiencies concerning communication/feedback/integration of the long-range planning process:

- 1. Slowness in decision making and in carrying out decisions.
- 2. Inadequate communication between system elements.
- 3. Frequent and serious errors in decision making.
- 4. Inadequate long-range planning and research and a lack of new ideas.
- 5. Excessive span of control.
- 6. Poor control, lack of knowledge of results and poor compliance to existing policy or planning.
- 7. Poor balancing and meshing of different departments.
- 8. Inefficient committee work.⁷⁷

These symptoms often do not manifest themselves immediately. This reorganization requires time for the long-range planning process to take hold. Any inferences from observations of the organization beyond the procedural so soon after the reorganization would be premature. These symptoms must be studied over time to narrow in on any organizational changes necessary. If these are symptoms are present, then where does the analysis begin?

Detailed analysis begins with looking for inefficiencies in procedures of an organization. If they prove to be unable to fix the inefficiencies, then the next step is to look for organizational changes. In planning a change, the focus is on achieving the effective transfer of power to accomplish the organizational objectives. The focus must also ensure the successful grouping of the planning, implementation and check and balance functions. This is done to ensure the power transferred at each level is not misdirected or frustrated.⁷⁸ I explore two procedural solutions and then describe three organizational solutions to potential communications problems within the status quo.

Plan Classification and Dissemination

Access to the long-range Plan and ability to communicate its message to the action officers are crucial to the Plan being implemented across the AF. Classification level and ability to widely disseminate the long-range Plan are the keys to access and ability to communicate the Plan. Previous failures at institutionalizing long-range planning have almost all coincided with the Plan being classified either TOP SECRET or SECRET. As Whiting and Dale point out, the Plans were additionally often closely held and not widely disseminated. Both of these factors combined to make communicating the Plan across the Air Force extremely difficult, if not impossible.

The Plan's success must ensure acceptance and use at all levels of Air Force planning (i.e., MAJCOMs, NAFs, Wings, etc.). These levels have to access the Plan and work the day-to-day Action Officer items such as creating briefings and Staff Summaries on issues concerning the Plan.

There will always be a struggle between making a plan robust, while still allowing it to be classified at a level, which allows it to be widely disseminated. Currently, the new Long Range Plan released in Spring 1997 is classified SECRET. This classification level should allow for wide dissemination to all levels of planning. Strict enforcement of the

existing rules for handling classified materials should be sufficient to safeguard the sensitive areas of the Plan. Any deviations from this level or attempts to limit the distribution of the Plan will probably have adverse effects on the Plan's impact on the Air Force. The only solution to this potential hurdle is to resist attempts to upgrade the classification level of the Plan or limit its distribution among those responsible for the decentralized planning at the MAJCOMs.

Air Force Corporate Structure

The AFCS is the linchpin for successful horizontal integration of the long-range plan across the Air Staff. Uncertainty, time available, lack of resources and complexity impact the Air Staff's ability to perform its mission. As these factors tend to segment the Air Staff into to specialty stovepipes to deal with them, the coordination required across the Air Staff increases. The AFCS is the mechanism which should prevent inconsistent and incorrect messages emerging from the organization. It allows for the vertical stovepipes to interact with each other and provide the AF Council with a synthesized and or consistent view on major issues. However, there are two potential procedural inefficiencies, which exist, in the current AFCS.

First, the IPT process is critical to the AFCS fulfilling its intended coordination. Crucial to the IPT process is the training provided to the team members prior to beginning the process. According to an Action Officer closely involved with the AFCS, the IPT's were stood up without the full training and therefore have been less effective than they might have been. The training involves ensuring the IPT members comprehend the purpose, process and objectives of the AFCS.

To date, the IPT training had not yet been fully accomplished, likely resulting in a less than efficient IPT process. Additionally, the turn over of Air Staff personnel accentuates this deficiency. The lack of continuity in personnel creates disparity in corporate knowledge concerning the process. These potential problems can be rectified by ensuring the training is necessary and if so, then constructing a plan to ensure the team members complete the training necessary to enhance their ability to contribute to the IPT process. Also, civil servants offer stability and corporate knowledge for processes such as the AFCS. They might be included as deputies to military personnel responsible for key portions of the process. Including more civilian personnel in the AFCS would alleviate some of the continuity problems the process may experience.

Second, many officers interviewed by this author stated that the IPT process was "out of control." They asserted that many Action Officers (AO) were assigned to as many as fourteen IPTs. The AFCS charter specifically states that an AO will continue to perform duties of their functional offices and that no additional manpower authorizations will be provided. They observed that it was impossible to contribute to the IPT process under these circumstances. A potential solution is to build significant hurdles to activating new IPTs, while creating incentives for disbanding IPTs, which are no longer essential. Additionally, I would analyze critically the manpower authorizations required for each IPT. I would keep the IPT participation to the minimum expertise required to effectively achieve the IPT objectives. Both of these should combine to allow the priority IPTs to have effective participation, while still allowing the AO to accomplish functional duties.

Manning Issues

Major General McIlvoy, Director of Strategic Planning, AF/XPX, is responsible for directing the long-range planning process. AF/XPX is not manned sufficiently to act as the OPR for many of the long-range planning issues requiring across the Air Staff coordination and communication. By default, many of the OPR's are assigned to the AF/XO staff or as an OCR. This in essence puts the AF/XO back into the long-range planning business. This situation is likely to present the same focus and coordination hurdles to long-range planning that it faced when the process was within the AF/XO before the reorganization. Although, it does present a method to avoid "stovepiping." Only time will reveal if the OPR's from other DCS's will have the time and focus to be able to adequately perform or participate in their long-range planning functions. The solution mentioned above concerning the AFCS should alleviate some of the inherent inefficiencies which act to prevent focus and deny time to long-range planning issues.

If these difficulties persist, another possible solution is to look at manpower assignment issues. This is a very contentious subject. The Air Staff manning is critical in most areas already due to congressional interest and the drawdown effects of recent years. Simply moving positions from one DCS to another is likely to create more problems than it might fix. The answer must lie in determining if not only the manpower, but their functional responsibilities can also be transferred. The next two sections discuss in more detail possible organizational changes which could alleviate any potential focus problem.

XOJ

Most major policy issues involve joint action with the Joint Staff, Services, CINCs, and other organizations. Many senior ranking officers on the Air Staff believe that in DOD, the center for resource allocation has become the JROC. The JRB and JROC are increasingly dealing with long-range planning issues for all services. As I described in the previous chapter, XOJ is critical to ensuring the long-range planning issues are represented in the joint arena and specifically at the JRB and JROC. They coordinate across the Air Staff on all joint matters and support the senior leadership attending those meetings.

The hurdle is once again communication and focus of the AO within a stovepipe (AF/XO) that is responsible for much more than just joint matters. An organizational change should be considered if symptoms arise in the future that clearly correlate a breakdown in the XOJ charter to being unable to focus and achieve coordination because of current issues. Since the Long Range Plan has just been released, it is too early to tell if symptoms are present. However, previous events suggest a strong possibility of XOJ being unable to coordinate completely and unencumbered by current operations.

At least two potential solutions to this problem would help alleviate it. First, the XOJ functions, structure and responsibilities could be elevated to the level of a Direct Reporting Unit (DRU) or AF/CCX type organization. Either of these units would resemble a commander's action group, but with a focus on joint issues. This unit could report directly to the CSAF or the VCSAF. This would enable the Air Staff to have an unencumbered coordination mechanism for joint issues. The primary integration mechanism

would be the AFCS. "XOJ" personnel would chair each Panel to ensure they acquired the Air Force corporate view on all issues, including long-range planning.

In a second option, XOJ could be split to allow each DCS to have a "J" coordinator for issues or processes for which the DCS is the primary conduit of information. The AFCS would still be the primary integration mechanism, but the Panels would be chaired by the joint representatives from each of the DCSs. Either of these options would alleviate this problem. I will discuss the second solution in more detail in the next section.

XOR

As stated earlier, long-range planning sets the future vision for the Air Force. It does this by identifying future end states and tasks required to achieve them. The MPP refines this data to technology solutions which can meet the needs identified by the end states. AF/XOR (Director of Operational Requirements) works the details (operational concepts and performance parameters) for the selected technologies to the point where it is handed over to SAF/AQ.⁷⁹ These details form the bulk of the requirements process for AF/XOR. AF/XOR's requirements process is critical to ensuring the resource allocation process in the joint arena matches the objectives of the Long Range Plan.

Global Engagement (the Vision Statement) states in the context of long-range planning, defining future core competencies provides strategic focus and is a bridge between doctrine and the requirements and programming process. This implies that requirements should encompass not only the entire range of Air Force core competencies, but should also be congruent with the Long Range Plan.

Major General Gregory Martin, AF/XOR, implied the Long Range Plan had major impact on the requirements process. He stated that the Plan would act as a corrective mechanism for any "flight path" deviations the requirement process might make. Although he felt the current Plan was a bit "shallow," once the actionable items with transition points were in place, the Plan would act to correct the requirement process to ensure it conforms to the Plan. ⁸⁰ Ideally, the process would need few corrections if the front-end guidance at the MAJCOM level is being adhered to in policy development. However, over time the struggle between current requirements and long-range plans may force the requirements process to deviate significantly from the Plan and trigger corrections. If procedural mechanisms cannot negotiate the impasse, then a change may be in order.

Under the assumption that the long-range planning process can correctly identify future needs for an effective requirements process, the change involves transferring the XOR functions, structures and responsibilities to XP. This would preclude having to incur expensive corrective measures to the requirement process. It would allow the plans and programs to be integrally linked to the requirement process. Plus, it further links requirements at the MAJCOM level to the MAJCOM XP. This would further enhance the integration of processes in the development of the MAPs and POM.

Additionally, in this organization, AF/XO would be further divested of the responsibility to plan long range. AF/XO would now coordinate on long-range requirements issues concerning the impact on current operations versus being responsible for major portions of the long-range planning process. AF/XP would now be responsible for the major functional areas, which impact the long-range planning, process. This would further en-

hance the ability of AF/XP to ensure the Plan's guidance is adhered to with minimal deviations and corrective measures.

If XOR is moved to XP and the previously mentioned possible changes for XOJ have not come to fruition, then another change is also necessary. If XOR is moved, XOJR should be transferred to XP and XOJP should stay in XO. This would allow each of the DCSs to have a joint coordinator for the JRB/JROC and "Tank" meetings.

I must also address one issue, which is beyond the scope of this study, but related to this solution. According to several senior officers on the Air Staff, recently many of the same issues are being covered by both the JROC and "Tank." Due its significance mentioned earlier, the JROC is usurping the ability of the OPSDEPs to make decisions on many issues at the "Tank" meetings. Even if the above changes are not implemented, the issue of division of responsibility for decisions on issues needs to be resolved between the two processes to preclude redundancy of effort.

I have described the pitfalls I see as possibilities for long-range planning within the status quo. I do not however see each one of them occurring soon, and in the next chapter I discuss the recommendations and summarize the paper.

Notes

⁷⁷Earnest Dale, *Planning and Developing the Company Organization Structure*, (New York: American Management Association, 1959) 174-175.

⁷⁸Heyel, 798.

⁷⁹Major General Gregory Martin, AF/XOR, memorandum to Maj Gandy, SAAS student, subject: Response to Questions on the Effects of the Long Range Plan on Requirements, 7 April 1997.

⁸⁰Major General Gregory Martin, AF/XOR, interviewed by author, 4 March 1997.

Chapter 7

Summary and Recommendations

We judge ourselves by what we feel capable of doing, while others judge us by what we have already done.

— Henry Wadsworth Longfellow

In this study I examined two basic questions. First, should the Air Force reorganize its long range planning efforts from the emerging status quo or use some other type of organization? The answer is to use a modified status quo organization. Second, for the given choice, are there potential hurdles to the successful institutionalization of long-range planning? The answer is a resounding yes. The current organization is better suited toward implementing long-range planning than the other option explored. However, it has potentially significant communication hurdles to overcome. If all of these potential problems come to fruition and the organizational and procedural solutions I addressed in the previous chapter are implemented, then in essence we have at the very least a heavily modified Option 1, if not a new Option 3

However, before making any organizational changes, AF/XP should conduct a thorough review of the processes to coincide with the next MPP cycle for the POM FY 02-07. The review should identify the norms for the steps within the processes mentioned earlier in this study. AF/XP would then be able to track long-range planning's interactions and impact on the processes. Further, they would be able to account for deviations from the

norm, which could be used to identify correlations and trends. One can study these correlations and trends to either substantiate the changes recommended in this study or look for other corrective measures.

If long-range planning is going to be successfully institutionalized in the Air Force, I believe this decision tree chart below should be used as a guideline for procedural and organizational changes to the Air Staff. (see figure 4) Each of the three questions for the decision tree are detailed below.

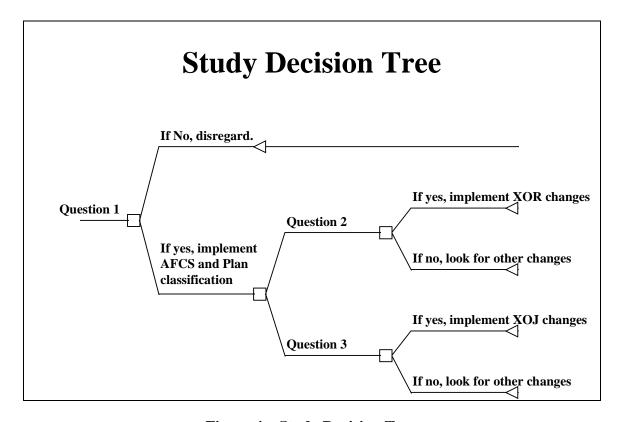


Figure 4—Study Decision Tree

This simple flow chart asks three questions which impact my recommendations. First, will long-range planning's emphasis last? As stated earlier, if the answer is no, then the study is a moot point. If the answer is yes, then the recommendations concerning changes to the AFCS and plan classification should be implemented as soon as possible.

Second, can corrective measures taken during the MPP/POM processes be attributed to AF/XOR functions being organizationally misplaced from long range planning? A thorough review of the Plan's impact on the MPP and the POM FY 02-07 development is necessary. Specifically, the review should look for corrections in Mission Needs Statements during the process and the overall requirements strategy which emerges from AF/XOR. If the cause of these corrections are attributable to AF/XOR's coordination process with AF/XP, then recommend moving the requirements functions to AF/XP.

Third, can negative trends identified during the review concerning presentation of a unified voice in joint areas be attributed to AF/XOJ functions being organizationally misplaced from long range planning? A thorough review of the ability of XOJ to coordinate across the Air Staff on joint issues is necessary. Specifically, this review should evaluate the congruence of Air Force positions at the JROC with guidance in the Long Range Plan. If this review finds numerous inconsistencies which are attributable to XOJ being organizationally misplaced, then the recommended redistribution of joint coordination functions should be implemented.

In conclusion, long-range planning is not a panacea for organizational efficiency and effectiveness, it is simply one method of enhancing the Air Force's ability to provide for this nation's defense. The Air Force must now decide if the return is worth the investment, if so, then long-range planning hurdles must be ameliorated to enhance its ability to be successfully institutionalized.

Glossary

AFCS Air Force Corporate Structure AFOS Air Force Objective Series

AO Action Officer

APPG Annual Planning and Programming Guidance ARDC Air Research and Development Command

BoD Board of Directors

CINC Commander in Chief

CJCS Chairman of the Joint Chiefs of Staff
CSAF Chief of Staff of the Air Force

DCS Deputy Chief of Staff

DCS OPS Deputy Chief of Staff for Operations

DOD Department of Defense DRU Direct Reporting Unit

FSPO USAF Force Structure & Program Objectives

FYDP Future Years Defense Program

ICBM Intercontinental Ballistic Missile

IPT Integrated Process Teams

JRB Joint Requirements Board

JROC Joint Requirements Oversight Council

JV 2010 Joint Vision 2010

JWCA Joint Warfighting Capabilities Assessment

LROPG Long-Range Objectives & Programs Group

LRP Long Range Plan

MAJCOM Major Command MAPS Mission Area Plans MAT Mission Area Teams

MPP Modernization Planning Process

NMS National Military Strategy NSS National Security Strategy

OSD Office of Secretary of Defense

POM Program Objectives Memorandum

PPBS Planning, Programming, and Budgeting System

R&D Research and Development

SAAS School of Advanced Airpower Studies

SAF Secretary of the Air Force

SAF/AQ Office of the Assistant Secretary for Acquisition

SAB Scientific Advisory Board SECDEF Secretary of Defense

USAF United States Air Force

VCSAF Vice Chief of Staff of the Air Force

XO Deputy Chief of Staff for Air and Space Operations (also DCS

OPS)

XOJ Director for Joint Matters

XOJP Joint and NSC Matters Division XOJR JROC Issues and Actions Division

XOR Director for Requirements

XOX Directorate of Plans

XP Deputy Chief of Staff for Plans and Programs

XPP Directorate of Programming
XPX Directorate of Strategic Planning

Bibliography

Books

- Abell, Derek F. *Managing With Dual Strategies: Mastering the Present, Preempting the Future*. New York: Maxwell Macmillan International, 1993.
- Albrecht, Karl. The Northbound Train: Finding the Purpose, Setting the Direction, Shaping the Destiny of Your Organization. New York: AMACON, 1994.
- Bible. Camden, N.J.: Thomas Nelson Inc., 1972.
- Brown, Alvin. *Organization—A Formulation of Principles*. New York: Hibbert Printing Company, 1945.
- Dale, Earnest. *Planning and Developing the Company Organization Structure*. New York: American Management Association, 1959.
- Futrell, Robert Frank. *Ideas, Concepts, Doctrine: Basic Thinking in the United States Air Force 1907-1960, Volume I.* Maxwell AFB, AL: Air University Press, 1989.
- Gorn, Michael H. Harnessing the Genie: Science and Technology Forecasting for the Air Force 1944-1986. Office of Air Force History, United States Air Force, 1988.
- Heyel, Carl ed. *The Encyclopedia of Management, Third Edition*. New York, N.Y.: Van Nostrand Reinhold Company, 1982.
- Minor, John B. *Organizational Behavior: Performance and Productivity*. New York: Random House, 1988.
- Mintzberg, Henry. *The Rise and Fall of Strategic Planning*. New York: Free Press, 1994. Morrisey, George L. *A Guide to Strategic Thinking: Building Your Planning Foundation*.
 - New York: The Free Press, 1994.
- Mott, Paul E. *The Characteristics of Effective Organizations*. New York: Harper & Row, 1972.
- Nadler, David. Discontinuous Change: Leading Organizational Transformation San Francisco: Jossey-Bass, 1995.
- Nolan, Timothy et al. *Plan or Die! 10 Keys to Organizational Success Thoughts on Strategic Planning.* San Diego, CA: Pfeiffer & Co., 1993.
- O'Hanlon, Michael. Defense Planning for the Late 1990s: Beyond the Desert Storm Framework. Washington D.C.: The Brookings Institution, 1995.
- Organ, Dennis W. and Thomas Bateman. *Organizational Behavior: An Applied Psychological Approach.* Plano, TX: Business Publications, Inc., 1996.
- Pfaltzgraff, Robert L. Jr., and Richard H. Shultz, Jr., ed. *The Future of Air Power in the Aftermath of the Gulf War*. Maxwell AFB, Ala.: Air University Press, July 1992.
- Scott, Cynthia D. *Organizational Vision, Values and Mission*. Menlo Park, Calif.: Crisp Publications, Inc., 1993.

Periodicals

- Builder, Carl H. and James A. Dewar. "A Time for Planning? If Not Now, When?," Parameters, Summer 94, 5-8.
- Murdock, Clark A. "Mission-pull and long-range planning." *Joint Forces Quarterly*. Autumn/Winter 94-95, 30.
- Watkins, Steven. "Reorganization Will Reflect Mission Changes," *Air Force Times*, no. 21 (December 23, 1996): 3.

Reports

- Henry, Jake. Implementation Plan, The Enhanced Air Force Corporate Structure, 1 November 1995.
- Hinkle, Wade P., James P. Bell, Andrew W. Hall and Caroline F. Ziemke, "New Techniques for Long Range Planning," IDA Paper P-3204. Alexandria, VA: Institute for Defense Analysis, 13 Sep 1996.
- Kent, Glenn A. and David A. Ochmanek. "Strengthening Planning Within the Air Force," RAND draft report DRR-1374-AF. Santa Monica, Calif.: RAND, May 1996.
- Lewis, Leslie. *Institutionalization of the Air Force's Long-Range Planning and New Concept Development Processes*. RAND Project Memorandum PM-551-AF. Santa Monica, Calif.: RAND, May 1996.
- Ochmanek, David A. and Stephen T. Hosmer, with John Bordeaux. "A Context for Defense Planning," RAND draft report DRR-1247-AF. Santa Monica, Calif.: RAND, January 1996.
- Whiting, Captain Stephen N. and Captain Thomas K. Dale. "Air Force Long-Range Planning: Institutionalization Revisited." HQ Air Force, Air Staff History Support Office.

Memorandums, Manuals, Lectures, Interviews and Briefings

- A National Security Strategy of Engagement and Enlargement. February, 1996.
- Global Engagement: A Vision for the 21st Century Air Force. November, 1996.
- Air Force Regulation 20-1. *Organizational Principles and Policies for the USAF*. Washington, D.C.: Department of the Air Force, 15 April, 1953.
- Air Force, Office of Special Assistant for Long-Range Planning. "Corona Issue Paper" Fall, 1996.
- Handy, Major General John, AF/XPP, interviewed by author, 23 January 1997.
- Martin, Major General Gregory, AF/XOR, interviewed by author, 4 March 1997.
- Martin, Major General Gregory, AF/XOR, Memorandum. To Major Jerry L. Gandy, SAAS student. Subject: Response to Questions on the Effects of the Long Range Plan on Requirements, 7 April 1997.
- McIlvoy, Major General David, AF/XPX. "Implementing the Vision." Lecture. Air University, Maxwell AFB, AL, 4 March 1997.

Murdock, Dr. Clark "Institutionalizing Long-Range Planning: Linking Planning to Programming" briefing, AF/LR, 20 August 1996.